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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/683,780	02/13/2002	James E. Bader	56162.00362	9493

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HUNTON & WILLIAMS  
INTELLECTUAL PROPERTY DEPARTMENT  
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WASHINGTON, DC 20006-1109

EXAMINER

SORRELL, ERON J

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 09/09/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/683,780

Applicant(s)

BADER ET AL.

Examiner

Eron J Sorrell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,4-8,12,13,16-18,22,23,26-28,32,33,36-38,42, and 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Marisetty et al. (U.S. Patent No. 5,792,598 hereinafter "Marisetty").

3. Referring to method claim 1 and 13, apparatus claim 23, and system claim 33, Marisetty discloses a method, apparatus and system, comprising:

connecting a first circuit component to the GPIO line (see item 104A connected to GPIO line 112)

connecting a second circuit component to the GPIO line concurrently with the first component (see item 104B connected to GPIO line 112)

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wherein the first circuit component is to provide input to the integrated circuit using the GPIO line during a first time (see lines 48-54 of column 5); and

wherein the second circuit component is to receive an output from the integrated circuit using the GPIO line during a second time (see lines 48-54 of column 5).

4. Referring to method claims 4-8, method claim 16-18, apparatus claims 26-28, and system claims 36 and 37, Marisetty teaches the GPIO line services one I/O device at a time, and the desired I/O device has control of the bus during that time, until control is given to another I/O device at another time different from the previous time (see lines 25-54 of column 5).

5. Referring to method claim 12, method claim 22, apparatus claim 32, and system claim 38, Marisetty teaches the integrated circuit comprises a programmable logic array (see item labeled 103 in figure 1).

6. Referring to system claims 42 and 43, Marisetty teaches the system comprises a communications modem and the modem includes the first and second circuits (see lines 36-47 of column 5; Note the network controllers are interpreted as a modem).

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***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 9-11, 19-21, 29-31, and 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marisetty in view of AAPA (Applicant's Admitted Prior Art).

9. Referring to method claims 9-11, method claims 19-21, apparatus claims 29-31, and system claims 39-41, Mariesetty discloses the I/O devices can any I/O peripheral that can be coupled to the computer system (see lines 36-47 of column 5), however fails to explicitly set forth the limitation that the I/O devices are switches, light emitting diodes (LEDS), or an inverter.

The applicant admits on page 1, paragraph 2, that switches, light emitting diodes (LEDS), and inverters are typically

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interfaced with GPIO lines and made use of by microcomputer systems.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the method and system of Marisetty such that the I/O devices can be switches, LEDS, or an inverter in order to be used in a wide variety of applications.

10. Claims 2,3,14,15,24,25,34,35, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marisetty in view of Amrany et al. (U.S. Patent No. 6,580,752 hereinafter Amrany).

11. Referring to method claims 2 and 3, method claims 14 and 15, apparatus claims 24 and 25, and system claims 34 and 35, Marisetty fails to teach the first component is further adapted to provide the first input at a low frequency relative to the switching frequency of the GPIO line and that the first time is concurrent with the second time.

Amrany teaches a method and a system wherein a first component is adapted to provide the first input at a low frequency relative to the switching frequency of the GPIO line and that the first time is concurrent with the second time (see

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lines 53-63 of column 4; Note the claimed limitation is interpreted as multiplexed communication).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the method and system of Marisetty with the teachings of Amrany such that the first component is further adapted to provide the first input at a low frequency relative to the switching frequency of the GPIO line and that the first time is concurrent with the second time in order to use this system to be used in a DSL system as suggested by Amrany.

12. Referring to claim 44, Amrany teaches the system is a DSL communication system (see abstract).

### ***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following references are cited to further show the state of the art as it pertains to I/O line sharing:

U.S. Patent No. 6,259,532 to Yapple et al.

U.S. Patent No. 6,496,880 to Ma et al.

U.S. Patent No. 6,560,146 to Cernea

U.S. Patent No. 6,057,705 to Wojewoda

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eron J Sorrell whose telephone number is 703 305-7800. The examiner can normally be reached on Monday-Friday 9:00AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A Gaffin can be reached on 703 308-3301. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305-3900.

EJS  
September 4, 2003



KIM HUYNH  
PRIMARY EXAMINER

9/5/03